

## 2.0 Design Approach

### 2.1 Design Philosophy

Ahead, along Highway 159 passing through Red Rock Canyon National Conservation Area, one sees a cluster of cars pulled off the side of the road, one or two stopped in the middle of the driving lane. Approaching dread of an automobile accident quickly changes to joy as passengers notice several sets of paired ears, silhouetted against the sky, rotating to acknowledge their arrival. With windows down, excited voices escape the vehicles. "There's another one," "Oh, look, a baby?" "Are those REAL Mustangs?"

People are excited to see wild horses and burros. Passion for these majestic animals abound. Visitors yearn to see these animals on the range and the Wild Free-Roaming Horse and Burro Act of 1971 protects them so that today we still can experience these living legends.

*"Congress finds and declares that wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West: that they contribute to the diversity of life forms within the nation and enrich the lives of the American people..."*

*Congress, Dec. 1971*

And yet these gentle animals that so many people treasure, also sometimes harm: themselves and the lands. Although they do live in the wild, they do not live in a truly wild environment. An introduced species, wild horses and burros live a life without true predation: their population is not balanced by nature alone.

With the Wild Free-Roaming Horse and Burro Act of 1971, the federal government became responsible for management of these herds. The Department of the Interior Bureau of Land Management became their shepherd.

As herd populations increase or as range conditions degrade, removing excess animals is required to achieve and maintain ecologically balanced ranges.<sup>6</sup> Adopting excess animals out to the public has successfully proven to be the humane management method to achieving and maintaining ecologically balanced ranges.<sup>6</sup>

<sup>6</sup>Per BLM – 7/9/2004

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Nevada, with sixty percent of the wild horses and burros in the nation and nearly one hundred herd management areas, is the perfect place for a permanent adoption and educational/interpretive<sup>6</sup> facility to meet an urgent need. A widespread, unanimously expressed desire to educate was carefully weighed against the needs the facility must provide. A wild horse and burro exhibit<sup>6</sup> component at Red Rock Canyon Visitor Center will touch the most people, teaching the general public that these magnificent creatures are a managed species with populations kept protected and in balance with other land uses.<sup>6</sup> The Oliver Ranch School will expose our nation's children to the animals and the management program that ensures that their children will see wild horses and burros. The Wild Horse and Burro Facility will educate those who have or want to adopt a wild horse or burro.

This needs to be, first and foremost, a working facility, one that functions to facilitate adoptions of horses and burros. The facility's success will be expressed by moving, examining, controlling, loading, unloading, housing the animals, and performing all activities necessary for the adoption process while minimizing stress to the animals and the potential for injury to both animals and people.

This is not just a BLM facility but a partnership between the BLM and many others; the National Wild Horse Association, other federal and state land managing agencies, Nellis Air Force Base, and volunteers, to name a few. The facility will serve as the foundation for organizing these peoples, allowing these groups to touch more of the public.

The design of the facility will strive to be a good neighbor; respecting the neighboring Parrot household, complementing Bonnie Springs, serving the Oliver Ranch School, helping animals still on the range, and enhancing the Red Rock Canyon National Conservation Area as an outdoor experience for the residents of the Las Vegas valley and its visitors. It's important that the facility and its operation not offend, detract from, or infringe on these neighbors. How issues that may impact others are resolved, such as flies, manure, noise, dust, odors, and traffic will influence the design.

Budget, ease of operation, quality, maintenance considerations, and sustainability will influence decisions. Respecting a delicate site in a fragile environment will lead the direction of the design approach. Simplicity of use and clarity of function will dictate the shape.

### **Wild Horse and Burro Facility**

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Line and Space, LLC 627 East Speedway Tucson, AZ 85705 (520) 623-1313

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<sup>6</sup>Per BLM – 7/9/2004

These beautiful and free animals, some just off the range and others in varying stages of gentling, are large, muscular, and powerful animals. An invaded sphere of comfort, the wrong movement, or a strange noise can cause every muscle of one of these creatures to react instantly. The potential for injury to the animal or a person is great. Careful, controlled interaction between animals and humans will inform the design. Resolution of a single point control of the entry to the facility, how one approaches the animals, the paths moving vehicles circulate on, the proximity to which unknowing people can approach, will prevent injury. It is necessary to keep the horses and burros safe and to keep people safe from these animals.

### 2.2 Goals and Objectives

Overarching design goals articulated during meetings and workshop sessions included:

Understand the horses/burros: their needs and perceptions (low-stress design – rounded corners, etc.), the way they move, their social structure, and their current state of confusion ... Safety of the horses/burros, workers, adopters, and visiting students from Oliver Ranch ... Understand the different interactions between man and horse/burro from gather, through gentling, to adoption ... Respect of the natural environment from which the horses/burros came, and in which the facility will be located ... Recognize the special requirements associated with the facility's most prominent occupant, the horse (dust problems, fly control, manure management, durability of materials, strong visible fencing, etc.)

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### 2.3 Codes and Regulatory Requirements

In accordance with BLM requirements the project shall comply with the:

- Applicable National and Local Building Codes\*
- OSHA requirements
- National Electric Code
- National Electrical Safety Code
- Uniform Mechanical Code
- National Fire Protection Association Standards
- American's with Disabilities Act
- Uniform Federal Accessibility Standards<sup>6</sup>
- All Other Applicable Codes and Standards

\*Current building codes adopted by Clark County:

Model Energy Code (1992)

Clark County Amusement and Transportation Systems Code (1998)

International Building Code w/ amendments (2000)

International Residential Code w/ amendments (2000)

Uniform Mechanical Code w/ amendments (2000)

Uniform Plumbing Code w/ amendments (2000)

National Electrical Code w/ amendments (2002)

Southern Nevada Pool Code (2003)

Building Administrative Code (2004)

Note: Codes and regulatory requirements are the same as those for the Oliver Ranch School - for convenience the information above was copied from the Oliver Ranch School Design Program.

<sup>6</sup> Per BLM – 7/9/2004

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### 2.4 Review and Approvals

The Design Oversight Committee of the CORE group, stakeholders involved in the Wild Horse and Burro facility since inception, will, from time to time, be briefed on progress for informational purposes and/or to provide input on certain issues. Comments will be received by the Building Advisory Committee and considered.

Periodically, the Building Advisory Committee, a small group of knowledgeable individuals nominated by the BLM, will review the design for functionality and general conformance with the Design Program. This Committee will be in the role of the “Client” for the architect and “Adviser” to the Manager of the BLM’s Las Vegas Field Office.

The Las Vegas Field Office will advise the Contracting Officer, Gwen Moore, through her representative, of their position regarding design approval. The Las Vegas Field Office Manager, Mark Morse, will be making decisions on this portion of the project. The Contracting Officer’s Representative (COR), will convey all final decisions. Pat Fleming has been designated COR for the project, and that any change in this designation would have to be made by Gwen Moore.<sup>6</sup>

Protocol dictates that information will flow from Line and Space to the COR and then to Michael Reiland, the Las Vegas Field Office Project Coordinator and vice versa. Initially, it is expected that this process will be expedited by direct distribution keeping all parties simultaneously advised.

Note: Review and approval requirements are the same as those for the Oliver Ranch School - for convenience the information above was copied from the Oliver Ranch School Design Program.

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### 2.5 Budget

The Oliver Ranch Project, including the residential school and wild horse and burro facility, is being funded through the Southern Nevada Public Nevada Land Management Act. It was approved for approximately \$22.5 million in Round 4. This funding must cover not only construction of the physical facilities and infrastructure, but also all planning, design, and administrative costs required for it. The project was subsequently nominated for an additional \$18 million in Round 5, primarily for on-site renewable energy systems, alternative transportation provisions, trails and teaching/interpretive venues throughout the site, and various other infrastructure enhancements. It was ranked number two of 32 submitted projects, and awaits Secretarial approval. Programming and planning will proceed with the assumption that the improvements in the Round 5 nomination will be designed and constructed.<sup>6</sup>

### 2.6 Unresolved Issues

As we move forward, the BLM must finish final planning for the Wild Horse and Burro Facility. Important issues that impact design and remain to be completed, in addition to the unresolved items identified in the Oliver Ranch School program affecting this project, include:

- Complete water feasibility study – if on site water supplies do not prove adequate, alternative sources (can the horses drink the water from the sulfate aquifer which is unsuitable for human consumption??) must be explored. This will be a time consuming process that ultimately will affect the viability of this project.
- Define the operating entity – An operating entity should be defined with the idea that this operator will immediately nominate a director who will participate in decision making as a member of the building committee.
- Prepare a Business Model/ Management Plan for the facility – This will provide us with information regarding administration and volunteer support. If a model is created which does not envision on-site volunteer support, space for future growth to accommodate this will be master planned. If it is deemed necessary, additional funding will be required to accommodate this 'Volunteer' space.

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- Finalize the research component – A future research component at the facility is included as part of the planning only. However, additional information, including: amount of funding, size, space/equipment needs, operations, relationships to research institutions, etc) should be investigated to allow for proper planning.
- Educational aspect with the Oliver Ranch School – Define the parameters of the student visits. What will they be doing, what areas of the facility will they visit, are they expected to have interaction with the Mascot horses, etc.?
- Clarify relationship with Visitor Center mascot horse visitation – What space relationships/facilities/sequences are required to transport mascot animals to the Visitor Center. How often will this occur?
- Create a formal use agreement or MOU with Bonnie Springs – To ensure the use of the Bonnie Springs parking lot for large events, and clarify the need to avoid scheduling conflicts between Bonnie Springs and the WH&B Facility, some sort of agreement between Bonnie Springs and the BLM should be formalized prior to conceptual design. Accounting for special event parking on the site will greatly impact the conceptual design of the site and the facility.
- Secure Round 5 funding – Certain aspects (including the horse waste digester, primarily resource conserving, of the conceptual and schematic designs will be dependent upon round 5 funding for implementation.
- Complete ground and aerial surveys – Clearly establish and define the boundary of the site. Define the north extent of the site which appears to be roughly identified by an old barbed wire fence.
- Can vehicular access to the facility come from the first leg (east/west section) of the Bonnie Springs Road – The property north of the site and the Lone Willow Spring have potential as a vehicular entry to the facility, as well as, an area to accommodate the large overflow parking in the case an agreement to use parking areas at Bonnie Springs is not successfully established.

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- Define the water storage listed in the round 4 funding summary – Per BLM personnel on 7/14/2004, The 10,000 gallons water storage was included in the Round 4 SNPLMA funding because of the uncertainty of the source of water for this project. Water storage may be necessary if the water feasibility study determines that the water source is inadequate to supply the facility.<sup>6</sup>

Note: For convenience some of the issues listed above are copied directly or copied and then modified from the Oliver Ranch School program.

<sup>6</sup> Per BLM – 7/9/2004